WHAT IS CLAIMED IS:

1. A method of electronically learning a signature, comprising the steps of:

sampling a signature and obtaining raw data representative thereof using a recursive sampling process;

translating the raw data into high dimension vectors; and

extracting, via an unsupervised neural network, high order principal components of the high dimension vectors by cumulative ortho-normalization.

2. The method of claim 1, further comprising integrating the high order principal components by generating a value r corresponding to a ratio of the number of vectors within an ellipsoid to the total number of vectors and a value s, the value s corresponding to the average of distances of all vectors within the ellipsoid.

3. The method of claim 2, further comprising:

calculating a value A = (average r – current signature sample r)^2/(variance of r) and B= (average s – current signature sample s)^2/(variance of s); and

multiplying the values A and B together.

4. The method of Claim 3, wherein multiplying the values A and B together comprises multiplying the values A and B together in a Pi neuron.

5. Software for electronically learning a signature, the software encoded in media and operable when executed to:

sample a signature and obtaining raw data representative thereof using a recursive sampling process;

translate the raw data into high dimension vectors; and

extract, via an unsupervised neural network, high order principal components of the high dimension vectors by cumulative ortho-normalization.

6. The software of claim 5, further operable to integrate the high order principal components by generating a value r corresponding to a ratio of the number of vectors within an ellipsoid to the total number of vectors and a value s, the value s corresponding to the average of distances of all vectors within the ellipsoid.

7. The software of claim 6, further operable to:

calculate a value A = (average r – current signature sample r)^2/(variance of r) and B= (average s – current signature sample s)^2/(variance of s); and

multiply the values A and B together.

8. The software of Claim 7, wherein the software operable to multiply the values A and B together comprises the software operable to multiply the values A and B together in a Pi neuron.

9. A computer for electronically learning a signature, comprising:

memory; and

one or more processors collectively operable to:

sample a signature and obtaining raw data representative thereof using a recursive sampling process;

translate the raw data into high dimension vectors; and

extract, via an unsupervised neural network, high order principal components of the high dimension vectors by cumulative ortho-normalization.

10. The computer of claim 9, the one or more processors further operable to integrate the high order principal components by generating a value r corresponding to a ratio of the number of vectors within an ellipsoid to the total number of vectors and a value s, the value s corresponding to the average of distances of all vectors within the ellipsoid.

11. The computer of claim 10, the one or more processors further operable to:

calculate a value A = (average r – current signature sample r)^2/(variance of r) and B= (average s – current signature sample s)^2/(variance of s); and

multiply the values A and B together.

12. The computer of Claim 11, wherein the one or more processors operable to multiply the values A and B together comprise the one or more processors operable to multiply the values A and B together in a Pi neuron.

13. A system for electronically learning a signature comprising:

means for sampling a signature and obtaining raw data representative thereof using a recursive sampling process;

means for translating the raw data into high dimension vectors; and

means for extracting, via an unsupervised neural network, high order principal components of the high dimension vectors by cumulative ortho-normalization.